MYRTLE LAKE BIOASSESSMENT/INSPECTION
November & December 2014; March 2015

Greetings, Lake Myrtle Residents!

Please find the latest bioassessment for your lake below. The next inspection for your lake will be on **April 15th**; weather permitting. Key highlights of this update will include:

- Herbicide treatments are scheduled for the last week of each month until August 2015
- Herbicide for March was executed on March 31st
- Fluctuating water elevations and herbicide treatments
- Species targeted during herbicide treatments
- Exotic snails present
- Recommendations for you and your lake
- **Upcoming restoration event- THIS SATURDAY APRIL 4th, 2015 9am**
- **Factsheet attached: Aquatic Plant of the Month- Bladderwort (may or may not exist in your waterbody)**

On **March 11th, 2015**, Seminole County Lake Management Program staff Thomas Calhoun and Sophia Pengra surveyed **Lake Myrtle's** south pool.

The native vegetation was found to be in good condition and expanding along the shores of the wildlife spoil islands. No submersed aquatic vegetation (SAV) was observed.

Photo: Native cord grass in wildlife spoil island.

Invasive species present during the inspection included alligatorweed and torpedo grass, which was targeted during the treatment that took place March 31st. Dog fennel and broom grass was

observed brown/dead from winter dieback. Native species present included: canna, yellow cow lily, maidencane, pickerelweed, duck potato, fire flag and cord grass.

Photo: Invasive alligatorweed.

Photo: Dead broom grass at entrance to canal.

The **Crowder canal** off Canal Point Road area was also inspected. The canal vegetation was found in good shape and was observed to be high in water elevation. Invasives present included: alligatorweed, torpedo grass, primrose willow, and other terrestrial weeds growing along bank. It is recommended to mow and weed-whack to the water's edge and treat the alligatorweed, primrose willow, and torpedo grass. Replanting with natives after successful treatment is highly recommended.

Photos: Both canals off Canal Point Road.

Seminole County's SERV (Seminole Education Restoration Volunteer) program has scheduled a volunteer planting event for Lake Myrtle on April 4th, 2015. During this event volunteers will plant native species for the purpose of up-taking excess nutrients and competing with invasive species. For more information on the SERV program and its events, please go to: http://csbweb.seminolecountyfl.gov/pw/roadstorm/SERV_lakerestproject.aspx

The invasive apple snail continues to be observed in the south pool of Myrtle Lake canal. Due to their high rate of reproduction, they have the potential to negatively impact the ecosystem of the lakes and canal. They have been known to decimate aquatic plant populations in other areas. The best method of control is hand removal of the large adult snails and scraping and crushing the egg clutches (clusters). Please only remove the bright pink egg clutches. More information can be found on the FWC website here http://myfwc.com/media/673720/FWC_applesnails_FLMS_handout.pdf.

Photo: Exotic snail eggs on left (bright pink with small eggs), native apple eggs snail on right (white to peachy white with larger eggs).

Photo: Invasive apple snail shell (left) and eggs (right).

Water quality samples are collected quarterly by Seminole County Water Quality section staff. The results of these collections and much more information can be found on the Seminole County Watershed Atlas: http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7624&wbodyatlas=lake

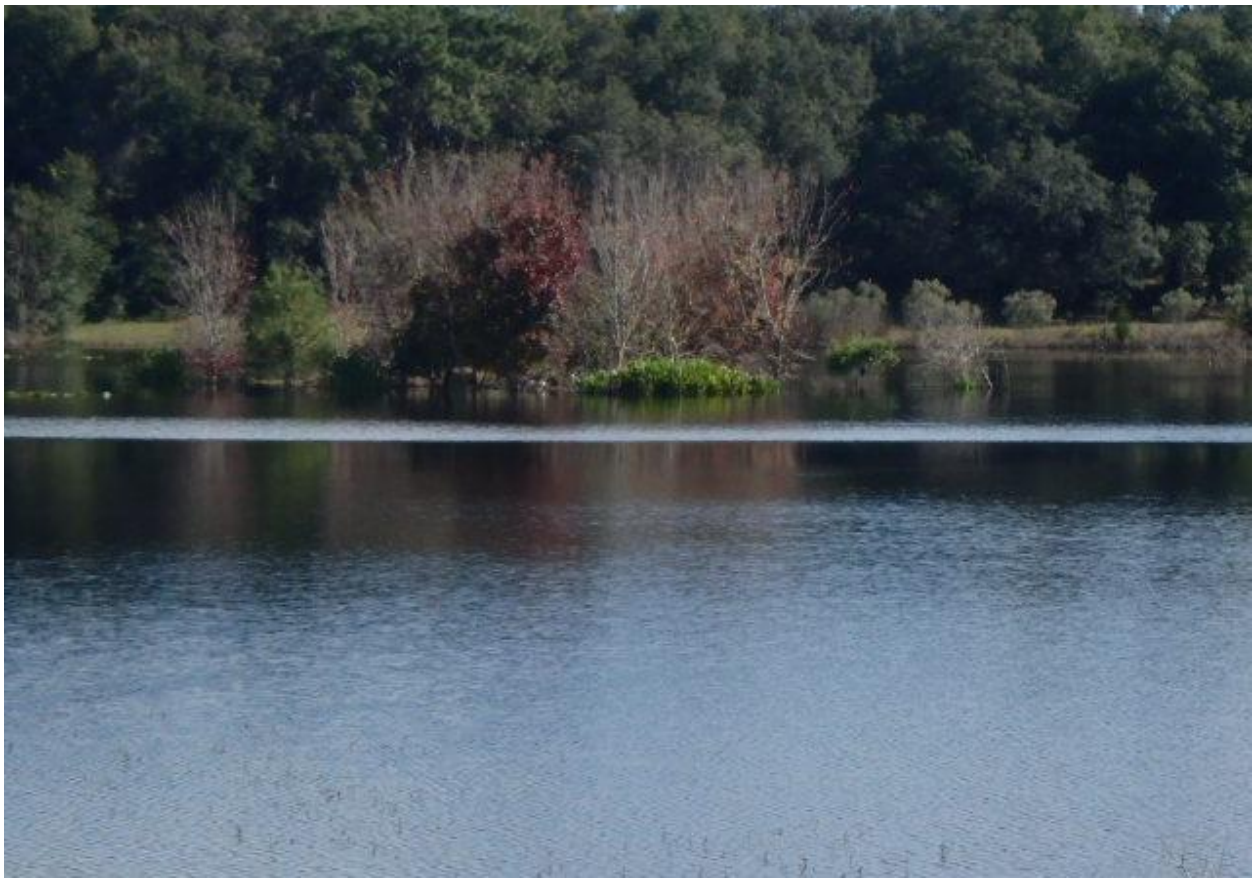
During the survey the water level was very high at 46.91 feet above sea level. A Secchi disk (water clarity) reading was not taken during this inspection. No triploid grass carp were observed during this inspection.

December 15th, 2014,

On **December 15th, 2014**, Seminole County Lake Management Program staff Thomas Calhoun and Joey Cordell surveyed **Lake Myrtle's** south pool.

Native species present included: canna, yellow cow lily, maidencane, pickerelweed, duck potato, fire flag and cord grass. The native vegetation was found to be in good condition and expanding along the shores of the wildlife spoil islands. No submersed aquatic vegetation (SAV) was observed. There was no herbicide treatment in December. Invasive apple snail was present during this inspection.

Photo: Wildlife island.



Invasive species present during the inspection included alligator weed and primrose willow (dead). Previously treated/dead primrose willow can still be seen from the September herbicide application; overtime it will sink and decompose. There are fewer primrose willow stems observed standing than in previous inspections.

Photo: Dead primrose willow at entrance to canal .

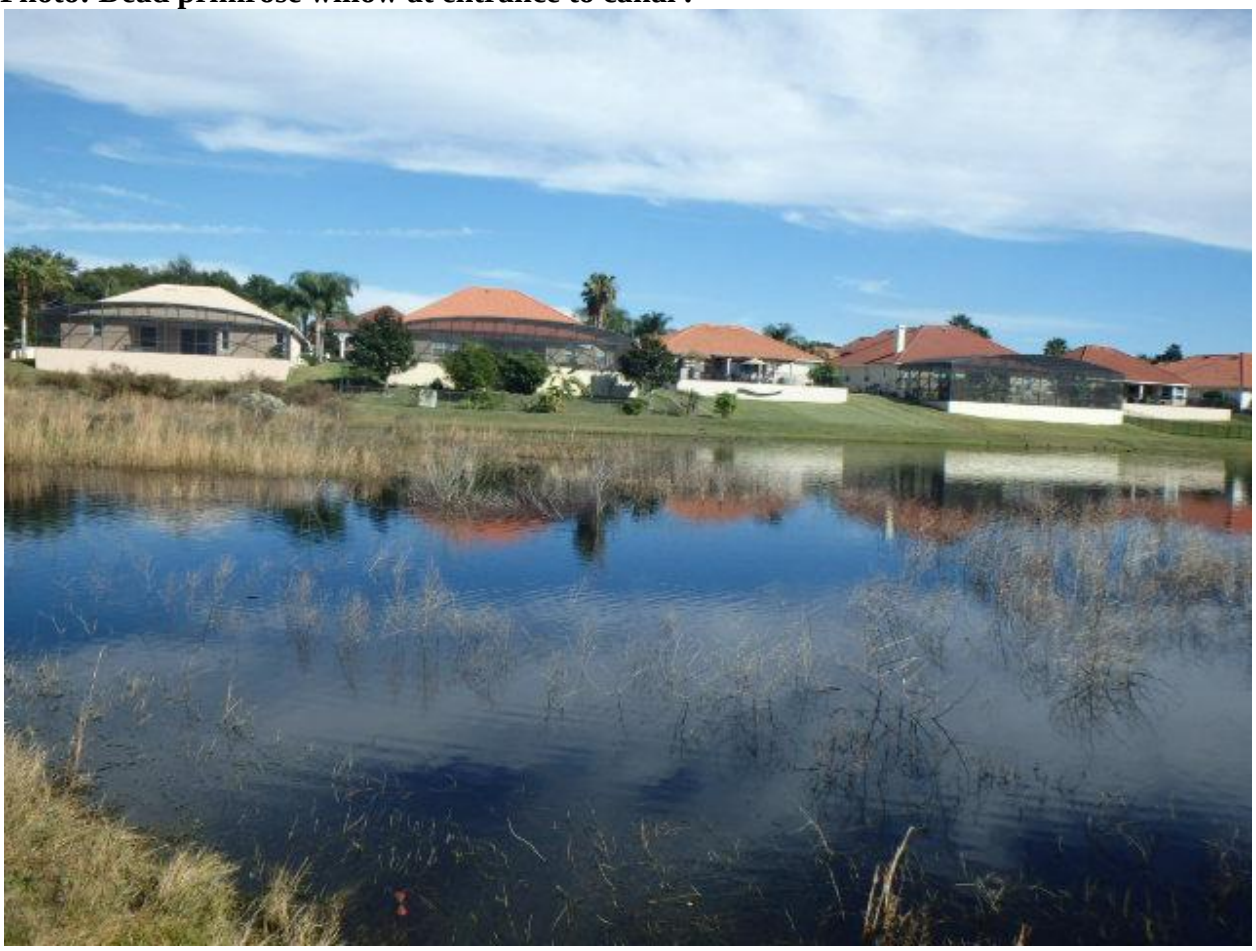


Photo: Invasive apple snail shell (left) and eggs (right).

During the survey there the water level was very high at 47.03 feet above sea level. A Secchi disk (water clarity) reading was not taken during this inspection. No triploid grass carp were observed during this inspection.

November 17th, 2014

On **November 17th, 2014**, Seminole County Lake Management Program staff Thomas Calhoun and Joey Cordell surveyed **Lake Myrtle's** south pool.

Photo: Treated primrose willow (invasive).

Invasive species present during the inspection included: alligatorweed, torpedo grass, primrose willow, dog fennel, and Carolina willow. Some dead primrose willow can still be seen from the September herbicide treatment, but will soon fall down into the water and decompose. Native species present included: canna, yellow cow lily, pennywort, maidencane, pickerel weed, duck potato, fire flag and cord grass. The native vegetation was found in good condition and expanding along the shores of the wild life spoil islands.

Photo: Wildlife spoil island.

Photo: Cord grass (native).

A Secchi disk (water clarity) reading was not taken during this inspection due to low water elevation. No triploid grass carp fish were observed during this inspection.

Lake Recommendations:

1 Work together to establish a lake association with other lakefront owners. Have at least one annual lake association meeting, invite guest speakers (such as county or state biologists), and discuss lake specific issues, especially lake management recommendations. Seminole County Lake Management staff would be glad to present findings from this and other surveys to the community. Contact Gloria Eby at (407) 665-2439 if interested.

2 Increase native aquatic plantings along the shoreline (such as pickerelweed, duck potato, and canna). Native shoreline plants help absorb nutrients from rainfall/run-off, improve habitat and water quality, and reduce shoreline erosion which transfers sediments and other organic matter into the lake. Over time, this process will fill the lake, creating more of a wetland–like habitat (formally known as eutrophication). Planting native species now can assist in slowing down this process. In addition, native plantings can reduce your herbicide costs/needs, providing a savings to you!

3 Utilize the valuable educational outreach programs that are available, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to reduce personal pollution by: decreasing overall fertilizer usage, **using only phosphorous free and slow-release nitrogen fertilizers**, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your lake and the storm drains that lead to the lakes. All of these activities aid in protecting your lake! Contact Seminole County Lake Management Program (407) 665-2439 for more information regarding the free educational programs available.

4 Help spread the word! Obtain email addresses from neighbors not currently on the distribution list, in order to share these reports. Valuable information is contained within these bioassessments.

Have a great day!

Gloria Eby
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407-665-2439
407-665-5600 (fax)Lake Management website:
http://www.seminole.wateratlas.usf.edu/LakeManagement

Mosquito Control website: http://www.seminolecountyfl.gov/pw/mosquito

Seminole Education, Restoration & Volunteer (SERV) Program

SEMINOLE COUNTY WATERSHED MANAGEMENT DIVISION

Aquatic Plant of the Month

Bladderwort (*Utricularia* species) : A Florida Native

14 Species of Bladderwort exist in Florida, all of which are native.

Identification

Bladderworts are annual or perennial plants which lack roots and are free floating. The entire free-floating plant is typically 8 inches tall with yellow, purple, or white flowers that rise above the water's surface. Underwater, the plant has fleshy, inflated stems that are filled with air and allow it to float. The leaves are forked and often have a very fine capillary appearance.

This unique carnivorous plant utilizes small oval "bladders" on its underwater leaves to trap and digest small aquatic organisms. Hairs at the edge of the bladder act as a trigger, causing the trap to spring open and draw in water (and organisms) when contacted.

Wildlife Value

Common bladderwort is used by several insects, waterfowl, and mammals as a food source. The stems also provide shelter and a place for wildlife to lay eggs.

Native submersed aquatic plants provide habitat for several micro- and macroinvertebrate species, which in turn provide a source of food for fish and other aquatic wildlife species including reptiles, amphibians, and waterfowl. Once aquatic plants die, their decomposing parts provide food (referred to as "detritus") for several aquatic invertebrates.

Additionally, native submersed plants play an important role in the aquatic ecosystem by reducing nutrients within the waterbody and by competing with invasive species for space.

Control

Although native, bladderwort may impede recreational access. For questions concerning control of bladderwort or to apply for a free aquatic plant removal permit, please contact your state agency, the Florida Fish and Wildlife Conservation Commission, online at: http://myfwc.com/license/aquatic-plants or by calling 863-534-7074.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

Sources:

Texas A&M AgriLife Extension. (2015). *Bladderwort*. Retrieved from http://aquaplant.tamu.edu/plant-identification/alphabetical-index/bladderwort/

Stritch, L. (n.d.). *Common Bladderwort*. U.S. Forest Service. Retrieved from http://www.fs.fed.us/wildflowers/plant-of-the-week/utricularia_macrorhiza.shtml

Wellendorf, N. (2011, April 27). *How to Distinguish the Aquatic Bladderworts* [PDF]. Retrieved from http://www.dep.state.fl.us/water/biosassess/docs/plants/field-id-utricularia-species.pdf